

In the Claims:

Please amend the claims of the above-identified application so as to read as follows:

1. (Currently Amended) A group robot system comprising a plurality of sensing robots,
and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing robots are respectively located relative to said control apparatus,
wherein said control apparatus responds to a detection of
an object by one of said plurality of sensing robots by
providing a to provide control such that a each of said plurality
of sensing robots, other than said sensing robot that has
detected said object, moves outside of the respective an area
relative to said control apparatus in which it was located prior to
the detection of the object of search.
2. (Currently Amended) The group robot system according to claim 1, wherein each of said
plurality of sensing robots is equipped with a the same sensor function and a
predetermined sensor function level relative to the others of said plurality of
sensing robots of a predetermined stage,
said control apparatus responds to a detection of an object by one
of said plurality of sensing robots (a) by providing robot to a provide
control such that another of said plurality of sensing robots that is
equipped with a function level of a stage differing from a the function
level of said one of said plurality of sensing robots that detected
said object conducts a further search of for said object, and

~~to provide (b) by providing a control such that a sensing robot other than~~
said one of said plurality of sensing robot robots that has detected the
object and said sensing robot conducting said further search moves
outside ~~the~~ of a respective area of search relative to said control
apparatus in which it was located prior to the detection of the object.

3. (Currently Amended) The group robot system according to claim 2, wherein
said control apparatus enables the predetermined sensor function level of a
selected one of the plurality of sensing robot robots ~~equipped with a function of a~~
~~predetermined stage among said plurality of sensing robots~~, and when said
selected one of said plurality of sensing robot robots ~~having the~~ with the enabled
function level detects an object, said control apparatus enables the predetermined
function level of another of said plurality of sensing robot robots that differs is
~~equipped with a function of a stage differing from the function level of said one~~
of said plurality of sensing robot robots that detected the object so as to provide a
control such that said another of said plurality of sensing robot robots ~~with the robots~~
~~enabled function~~ conducts a further search for ~~of~~ said object.

4. (Currently Amended) The group robot system according to claim 2, wherein
said relative sensor function levels of said plurality of sensing robot robots is
determined by any of a sensing resolution, a sensor type, and a processing method of
sensor information.

5. (Currently Amended) The group robot system according to claim 1, wherein said plurality of sensing robots and said control apparatus conduct communication in a hierarchical manner ~~with~~ wherein said control apparatus ~~as~~ has the highest level of hierarchy, and said control apparatus responds to a detection of an object by one of said plurality of sensing robot to provide robots by providing control such that said one of said plurality of sensing robot robots that has detected the object and a another of said plurality of sensing robot robots other than a sensing robot located at a hierarchy hierarchical communication position between said one of said plurality of sensing robot robots and said control apparatus that relays, and relaying communication when hierarchical communication is conducted from said one of said plurality of sensing robot robots to said control apparatus moves outside said a respective area of search relative to said control apparatus in which it was located prior to the detection of the object.
6. (Currently Amended) The group robot system according to claim 1, wherein said control apparatus includes a pheromone robot controlling travel of at least one of said sensing ~~robot robots~~, and wherein said pheromone robot ~~moving moves~~, when one of said plurality of sensing ~~robot robots~~ detects an object, to a neighborhood of said object.

7. (Currently Amended) The group robot system according to claim 1, wherein
said control apparatus includes a pheromone robot controlling travel of at least one of said plurality of sensing ~~robot~~ robots,
said pheromone robot being responsive to a detection of an object by one of said plurality of sensing ~~robot~~ robots so as to provide a control such that another of said ~~other~~ plurality of sensing ~~robot~~ differing robots different from the one of said plurality of sensing ~~robot~~ robots that has detected said object moves to a neighborhood of said pheromone robot.
8. (Currently Amended) The group robot system according to claim 1, wherein at least one of said sensing ~~robot~~ robots is capable of fluttering flight by fluttering motion.
9. (Withdrawn) A group robot system comprising a plurality of sensing robots, and a control apparatus controlling said sensing robot,
wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that a sensing robot other than said sensing robot that has detected the object moves to an initial position.

10. (Withdrawn) The group robot system according to claim 9, wherein
- each of said plurality of sensing robots is equipped with a function of a
predetermined stage,
- said control apparatus responds to detection of an object by said sensing robot to
provide control such that another sensing robot that is equipped with a function
of a stage differing from the function of said sensing robot conducts further
search of said object, and
- to provide control such that a sensing robot other than said sensing robot that has
detected the object and said sensing robot conducting further search moves to
said initial position.
11. (Withdrawn) The group robot system according to claim 10, wherein said control
apparatus enables the function of a sensing robot equipped with a function of a
predetermined stage among said plurality of sensing robots, and when said sensing
robot with the enabled function detects an object, enables the function of another
sensing robot that is equipped with a function of a stage differing from the function
of said sensing robot to provide control such that said another sensing robot with the
enabled function conducts further search of said object.

12. (Withdrawn) The group robot system according to claim 10, wherein said function of a sensing robot is any of a sensing resolution, a sensor type, and a processing method of sensor information.
13. (Withdrawn) The group robot system according to claim 9, wherein said plurality of sensing robots and said control apparatus conduct communication in a hierarchical manner with said control apparatus as the highest level of hierarchy, and said control apparatus responds to detection of an object by said sensing robot to provide control such that said sensing robot that has detected the object and a sensing robot other than a sensing robot located at a hierarchy between said sensing robot and said control apparatus, and relaying communication when hierarchical communication is conducted from said sensing robot to said control apparatus moves to said initial position.
14. (Withdrawn) The group robot system according to claim 9 , wherein said control apparatus includes a pheromone robot controlling travel of said sensing robot, said pheromone robot moving, when said sensing robot detects an object, to a neighborhood of said object.

15. (Withdrawn) The group robot system according to claim 9, wherein said control apparatus includes a pheromone robot controlling travel of said sensing robot, said pheromone robot being responsive to detection of an object by said sensing robot to provide control such that said other sensing robot differing from said sensing robot that has detected said object moves to a neighborhood of said pheromone robot.
16. (Withdrawn) The group robot system according to claim 9, wherein said sensing robot is capable of a fluttering flight by a fluttering motion.
17. (Withdrawn) A group robot system comprising a plurality of sensing robots equipped with a sensor function, and a control apparatus controlling said sensing robot, wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that the sensor function of a predetermined sensing robot among said plurality of sensing robots is enabled, and the sensor function of a sensing robot other than the sensing robot with the enabled sensor function is disabled.
18. (Withdrawn) The group robot system according to claim 17, wherein said plurality of sensing robots and said control apparatus conduct communication in a hierarchical manner with said control apparatus as the highest level of hierarchy.

19. (Withdrawn) The group robot system according to claim 17, wherein said sensing robot with disabled sensor function relays communication of said sensing robot that has detected the object and said control apparatus when said sensing robot detects the object.
20. (Withdrawn) The group robot system according to claim 19, wherein said sensing robot relaying communication of said sensing robot that has detected the object and said control apparatus is a robot capable of a fluttering flight through a fluttering motion, and hovers when conducting said relay.
21. (Withdrawn) The group robot system according to claim 19, wherein said control apparatus includes a pheromone robot controlling travel of said sensing robot, and said sensing robot relaying communication of said sensing robot that has detected the object and said control apparatus relays said communication in an arrangement substantially linearly between said control apparatus and said pheromone robot.
22. (Withdrawn) The group robot system according to claim 21, wherein a line between said control apparatus and said pheromone robot, of said sensing robot relaying communication of the sensing robot that has detected the object and said control apparatus is in plurality
23. (Withdrawn) The group robot system according to claim 22, wherein said plurality of lines of sensing robots relaying communication of said sensing robot that has detected the object and said control apparatus relays, in an arbitrary line, sensing information identical to the sensing information from said sensing robot that has detected the object to said control apparatus.

24. (Withdrawn) The group robot system according to claim 22, wherein said plurality of lines of sensing robots relaying communication of said sensing robot that has detected the object and said control apparatus relays, for every line, sensing information of a different type from said sensing robot that has detected the object and equipped with a different sensing function to said control apparatus.
25. (Withdrawn) The group robot system according to claim 17, wherein said control apparatus includes a pheromone robot controlling travel of said sensing robot, said pheromone robot being responsive to detection of an object by said sensing robot to provide control such that said other sensing robot differing from said sensing robot that has detected said object moves to a neighborhood of said pheromone robot.
26. (Withdrawn) The group robot system according to claim 17, wherein said sensing robot is capable of a fluttering flight by a fluttering motion.
27. (Withdrawn) A group robot system comprising a plurality of sensing robots equipped with a sensor function, and a control apparatus controlling said sensing robot, wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and equipped with a sensor function of a resolution higher than the resolution of the sensor function of said sensing robot that has detected the object conducts further search of said object.

28. (Withdrawn) The group robot system according to claim 27, wherein said control apparatus responds to detection of the object by said sensing robot to provide control such that said another sensing robot differing from said sensing robot that has detected the object moves to a neighborhood of said object.
29. (Withdrawn) The group robot system according to claim 27, wherein said control apparatus includes a pheromone robot controlling travel of said sensing robot, said pheromone robot being responsive to detection of an object by said sensing robot to provide control such that said another sensing robot differing from said sensing robot that has detected the object moves to a neighborhood of said pheromone robot.
30. (Withdrawn) The group robot system according to claim 27, wherein said sensing robot is capable of a fluttering flight by a fluttering motion.
31. (Withdrawn) A group robot system comprising a plurality of sensing robots equipped with a sensor function, and a control apparatus controlling said sensing robot, wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and that is equipped with a sensor function of a type different from the type of the sensor function of said sensing robot that has detected the object conducts further search of said object.

32. (Withdrawn) The group robot system according to claim 31, wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that said another sensing robot differing from said sensing robot that has detected the object moves to a neighborhood of said object.
33. (Withdrawn) The group robot system according to claim 31, wherein said control apparatus includes a pheromone robot controlling travel of said sensing robot,
said pheromone robot being responsive to detection of an object by said sensing robot to provide control such that said another sensing robot differing from said sensing robot that has detected the object moves to a neighborhood of said pheromone robot.
34. (Withdrawn) The group robot system according to claim 31, wherein said sensing robot is capable of a fluttering flight by a fluttering motion.
35. (Withdrawn) A group robot system comprising a plurality of sensing robots equipped with a sensor function, and a control apparatus controlling said sensing robot,
wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and having a processing method of sensor information differing from the processing method of sensor information of said sensing robot that has detected the object conducts further search of said object.

36. (Withdrawn) The group robot system according to claim 35, wherein said control apparatus responds to detection of an object by said sensing robot to provide control such that said another sensing robot differing from said sensing robot that has detected the object moves to a neighborhood of said object.
37. (Withdrawn) The group robot system according to claim 35, wherein said control apparatus \ includes a pheromone robot controlling travel of said sensing robot, said pheromone robot being responsive to detection of an object by said sensing robot to provide control such that said another sensing robot differing from said sensing robot that has detected the object moves to a neighborhood of said pheromone robot.
38. (Withdrawn) The group robot system according to claim 35, wherein said sensing robot is capable of a fluttering flight by a fluttering motion.

39. (Currently Amended) A sensing robot capable of fluttering flight included in a group robot system comprising a plurality of sensing robots and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing robots are respectively located relative to said control apparatus, and in which wherein said control apparatus responds to detection of an object by one of said plurality of sensing robot robots so as to provide a control such that a another of said plurality of sensing robots robot other than said sensing robot that has detected the object moves outside an the area of search relative to said control apparatus in which it was located prior to the detection of the object ; wherein the sensing robot in the group robot system is under control of said control apparatus.

40. (Withdrawn) A sensing robot capable of a fluttering flight included in a group robot system comprising a plurality of sensing robots and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that a sensing robot other than said sensing robot that has detected the object moves to an initial position, wherein the sensing robot in the group robot system is under control of said control apparatus.

41. (Withdrawn) A sensing robot capable of a fluttering flight included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that the sensor function of a predetermined sensing robot among said plurality of sensing robots is enabled, and the sensor function of a sensing robot other than the sensing robot with the enabled sensor function is disabled, wherein the sensing robot in the group robot system is under control of said control apparatus.
42. (Withdrawn) A sensing robot capable of a fluttering flight included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and equipped with a sensor function of a resolution higher than the resolution of the sensor function of said sensing robot that has detected the object conducts further search of said object, wherein the sensing robot in the group robot system is under control of said control apparatus.
43. (Withdrawn) A sensing robot capable of a fluttering flight included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and that is equipped with a sensor function of a type different from the type of the sensor function of said sensing robot that has detected the object conducts further search of said object, wherein the sensing robot in the group robot system is under control of said control apparatus.

44. (Withdrawn) A sensing robot capable of a fluttering flight included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and having a processing method of sensor information differing from the processing method of sensor information of said sensing robot that has detected the object conducts further search of the object, wherein the sensing robot in the group robot system is under control of said control apparatus.

45. (Currently Amended) A base station included in a group robot system comprising a plurality of sensing robots including at least one sensing robot capable of fluttering flight through a fluttering motion and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing robots are respectively located relative to said control apparatus,

wherein said control apparatus responds to a detection of an object by one of said plurality of sensing robots by providing a ~~to~~ provide control such that a each of said plurality of sensing robots, other than said sensing robot that has detected said object, moves outside of the respective an area relative to said control apparatus in which it was located prior to the detection of the object of search, and

wherein said base station corresponds to said control apparatus, ~~and controls said sensing robot capable of a fluttering flight through a fluttering motion.~~

46. (Withdrawn) A base station included in a group robot system comprising a plurality of sensing robots and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that a sensing robot other than said sensing robot that has detected the object moves to an initial position, wherein said base station corresponds to said control apparatus, and controls said sensing robot capable of a fluttering flight through a fluttering motion..
47. (Withdrawn) A base station included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that the sensor function of a predetermined sensing robot among said plurality of sensing robots is enabled, and the sensor function of a sensing robot other than the sensing robot with the enabled sensor function is disabled, wherein said base station corresponds to said control apparatus, and controls said sensing robot capable of a fluttering flight through a fluttering motion.
48. (Withdrawn) A base station included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and equipped with a sensor function of a resolution higher than the resolution of the sensor function of said sensing robot that has detected the object conducts further search of said object, wherein said base station corresponds to said control apparatus, and controls said sensing robot capable of a fluttering flight through a fluttering motion.

49. (Withdrawn) A base station included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and that is equipped with a sensor function of a type different from the type of the sensor function of said sensing robot that has detected the object conducts further search of said object, wherein said base station corresponds to said control apparatus, and controls said sensing robot capable of a fluttering flight through a fluttering motion.
50. (Withdrawn) A base station included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and having a processing method of sensor information differing from the processing method of sensor information of said sensing robot that has detected the object conducts further search of said object, wherein said base station corresponds to said control apparatus, and controls said sensing robot capable of a fluttering flight through a fluttering motion.

51. (Currently Amended) A pheromone robot included in a group robot system

comprising a plurality of sensing robots including at least one sensing robot capable of fluttering flight through a fluttering motion and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing ~~robot~~ robots are respectively located relative to said control apparatus,

wherein said control apparatus responds to a detection of an object by one of said plurality of sensing ~~robot~~ robots by providing a ~~to~~ provide control such that a each of said plurality of sensing ~~robot~~ robots, other than said sensing robot that has detected said object, moves outside of the respective ~~an~~ area relative to said control apparatus in which it was located prior to the detection of the object of search, and,

wherein said pheromone robot controls travel of at least one of said plurality of sensing ~~robot~~ robots capable of fluttering flight through a fluttering motion.

52. (Withdrawn) A pheromone robot included in a group robot system comprising a

plurality of sensing robots and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that a sensing robot other than said sensing robot that has detected the object moves to an initial position, wherein said pheromone robot controls travel of said sensing robot capable of a fluttering flight through a fluttering motion.

53. (Withdrawn) A pheromone robot included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that the sensor function of a predetermined sensing robot among said plurality of sensing robots is enabled, and the sensor function of a sensing robot other than the sensing robot with the enabled sensor function is disabled, wherein said pheromone robot controls travel of said sensing robot capable of a fluttering flight through a fluttering motion.
54. (Withdrawn) A pheromone robot included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and equipped with a sensor function of a resolution higher than the resolution of said sensor function of said sensing robot that has detected the object conducts further search of said object, wherein said pheromone robot controls travel of said sensing robot capable of a fluttering flight through a fluttering motion.
55. (Withdrawn) A pheromone robot included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and that is equipped with a sensor function of a type different from the type of the sensor function of said sensing robot that has detected the object conducts further search of said object, wherein said pheromone robot controls travel of said sensing robot capable of a fluttering flight through a fluttering motion

56. (Withdrawn) A pheromone robot included in a group robot system comprising a plurality of sensing robots equipped with a sensor function and a control apparatus controlling said sensing robot, and in which said control apparatus responds to detection of an object by said sensing robot to provide control such that another sensing robot differing from said sensing robot that has detected the object, and having a processing method of sensor information differing from the processing method of sensor information of said sensing robot that has detected the object conducts further search of said object, wherein said pheromone robot controls travel of said sensing robot capable of a fluttering flight through a fluttering motion.